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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR       | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/666,057      | 09/18/2003  | Frederick James Diggle III | BE1-0047US          | 7685             |

49584 7590 03/28/2007  
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| EXAMINER |
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TIEU, BINH KIEN

|          |              |
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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2614

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE  | DELIVERY MODE |
|--|------------|---------------|
| 3 MONTHS                               | 03/28/2007 | PAPER         |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/666,057

Applicant(s)

FREDERICK JAMES DIGGLE III

Examiner

BINH K. TIEU

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-9 and 16-19 is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-15, 20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION*****Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-5, 10-15 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jablway et al. (US. Pat. #: 4,536,703 *as recited in the previous Office Action*) in view of Fernaudez (Pub. No.: US 2003/0132757).

***Regarding claim 1***, Jablway et al. ("Jablway") teaches an apparatus for connecting a tone generator to a plurality of conductors in a communication line, said apparatus comprising:

an interconnect structure comprising:

a first plurality of leads (i.e., four wires 10, 11, 12 and 13 of cable 9 to be tested as shown in figures 1 and 4) comprising an electrically conductive portion having a first end (i.e., cable 9 having first end connected to the connector 14) and a second end (i.e., the second end of cable connected to a bank of terminals 16, 17, 18 and 19), wherein the first plurality of leads are commonly electrically attached at the first end (i.e., the first ends of wires of cable 9 commonly electrically attached to the connector 14, col.4, lines 1-8) and wherein the first end is configured to electrically attached to a tone generator (i.e., power wire 76 (Fig. 4), read on "pigtail" conductor, is configured to electrically attached to a test set 22 via a pushbutton switch 26, col.5, lines 21-43); and

a plurality of first electrical connection devices electrically attached to a plurality of corresponding leads of the first plurality of leads at the second end (i.e., second ends of the wires of cable 9 connected to a bank of terminals 16, 17, 18 and 19), a plurality of first electrical connection devices configured to engage a plurality of electrical conductors of a communication line to provide an electrical connection between the tone generator and a plurality of electrical conductors of the communication line (col.3, lines 44-68 and col.4, lines 1-11).

It should be noticed that Jablway fails to clearly teach the feature of simultaneously distributing test signals into conductors of a communication line, as argued by the Applicant. However, Fernaudez teaches a cable testing adapter, as shown in figure 2, comprising cable-testing module 1 and cable-testing module 2. A test cable 28 is connected between the cable testing adapter 42 and the cable-testing module 1 for transmitting/sending test signals through path cables 14a through 14l so that the cable-testing module 2 can receive test signals at *any one* of cables 14a through 14l (test signals being transmitted/inserted simultaneously on cables 14a-14l so that test signals can be received at any one of cables 14a through 14l, see paragraphs [0035]) for a purpose of testing all cables without changing the connection of the first cable-testing module 1 at the patch panel.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the use of the feature of simultaneously distributing test signals into conductors of a communication line, as taught by Fernaudez, into view of Jablway, in order to save time on testing all of the conductors in a communication line.

Regarding claims 2-3, Jablway further teach limitations such as the power wire 76 is read on as the “pigtail” conductor for connected between the test set 22 and connector 14 for providing pulse signals to the wires 10-13 (col.5, lines 21-49).

Regarding claim 4, Jablway further teach limitations such as the pushbutton switch 26 operable as an electrical connection device for releasably attaching the pigtail to the test device 22 as shown in figure 4.

Regarding claims 5 and 10, Jablway further teach limitations such as noted in figure 2, col.4, lines 1-31.

***Regarding claim 11***, Jablway teaches a system for testing a communication line (e.g., cable 9 as shown in figures 1 and 4) including a plurality of electrical conductors (such as conductors 10, 11, 12 and 13), the system comprising:

a tone generator (i.e., test set 22 as shown in figure 4) having a signal output terminal and a common return terminal (i.e., test set 22 as shown in figure 4); and

an interconnect structure electrically coupled to the tone generator, the interconnect structure comprising:

a first plurality of leads (i.e., four wires 10, 11, 12 and 13 of cable 9 to be tested as shown in figures 1 and 4) comprising an electrically conductive portion having a first end (i.e., cable 9 having first end connected to the connector 14) and a second end (i.e., the second end of cable connected to a bank of terminals 16, 17, 18 and 19), wherein the first plurality of leads are commonly electrically attached at the first end (i.e., the first ends of wires of cable 9 commonly electrically attached to the connector 14, col.4, lines 1-8) and wherein the first end is configured to electrically attached to a tone generator (i.e., power wire 76 (Fig. 4), read on “pigtail”

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conductor, is configured to electrically attached to a test set 22 via a pushbutton switch 26, col.5, lines 21-43); and

a plurality of first electrical connection devices electrically attached to a plurality of corresponding leads of the first plurality of leads at the second end (i.e., second ends of the wires of cable 9 connected to a bank of terminals 16, 17, 18 and 19), a plurality of first electrical connection devices configured to engage a plurality of electrical conductors of a communication line to provide an electrical connection between the tone generator and a plurality of electrical conductors of the communication line (col.3, lines 44-68 and col.4, lines 1-11).

It should be noticed that Jablway fails to clearly teach the feature of simultaneously distributing test signals into conductors of a communication line, as argued by the Applicant. However, Fernadez teaches a cable testing adapter, as shown in figure 2, comprising cable-testing module 1 and cable-testing module 2. A test cable 28 is connected between the cable testing adapter 42 and the cable-testing module 1 for transmitting/sending test signals through path cables 14a through 14l so that the cable-testing module 2 can receive test signals at *any one* of cables 14a through 14l (test signals being transmitted/inserted simultaneously on cables 14a-14l so that test signals can be received at any one of cables 14a through 14l, see paragraphs [0035]) for a purpose of testing all cables without changing the connection of the first cable-testing module 1 at the patch panel.

Regarding claims 12-13, Jablway further teach limitations such as the power wire 76 is read on as the “pigtail” conductor for connected between the test set 22 and connector 14 for providing pulse signals to the wires 10-13 (col.5, lines 21-49).

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Regarding claim 14, Jablway further teach limitations such as the pushbutton switch 26 operable as an electrical connection device for releasably attaching the pigtail to the test device 22 as shown in figure 4.

Regarding claims 15 and 20, Jablway further teach limitations as noted in figure 2, col.4, lines 1-31.

***Allowable Subject Matter***

3. Claims 6-9 and 16-19 are allowed.

***Response to Arguments***

4. Applicant's arguments with respect to claims 1-5, 10-15 and 20 have been considered but are moot in view of the new ground(s) of rejection.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Binh K. Tieu whose telephone number is (571) 272-7510 and E-mail address: [BINH.TIEU@USPTO.GOV](mailto:BINH.TIEU@USPTO.GOV).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Curtis Kuntz, can be reached on (571) 272-7499 and **IF PAPER HAS BEEN MISSED FROM THIS OFFICIAL ACTION PACKAGE, PLEASE CALL CUSTOMER SERVICE FOR THE SUBSTITUTIONS OR COPIES.**

Any response to this action should be mailed to:  
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(571) 273-8300  
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A handwritten signature in black ink, appearing to read "Binh Tieu", with a long horizontal flourish extending to the right.

**BINH TIEU**  
**PRIMARY EXAMINER**

Technology Division 2614

Date: March 20, 2007